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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,543	10/29/2002	Tadashi Takano	SIMTEK6506	7672

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EXAMINER

NGUYEN, TRAN N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,543

Applicant(s)

TAKANO ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they do not clearly show the following, as described in the specification and recited in the claimed:

** a single indented portion is formed around the entire peripheral edge of each of the lamination sheets, as in claim 2,*

** a plurality of circumferentially spaced indented portions are formed around the peripheral edge of each of the lamination sheets, as in claim 4.*

The drawings show these features in small illustration. The applicant is required to show the above features in an enlarge view to clearly illustrate the claimed features.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "the peripheral edge" lacks antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kloster et al (US5142178) in view of Yamamoto (US 5338996) and level of ordinary skills of a worker in the art.

Kloster discloses a laminated core for a rotary electric machine (figs 1-2), said core comprising a plurality of stacked lamination sheets (2) formed from a electromagnetic material, each of said lamination sheets being comprise of a circular core portion from which a plurality of circumferentially spaced teeth extend radially inwardly to receive coil windings, the peripheral outer area of the circular core portion spaced from said pole teeth being formed with an indented portion forming a peripheral projection thereof and a peripheral recess on the other side thereof, the peripheral projection of each of said lamination sheets being received in the peripheral recess of the adjacent of said lamination sheets for interlocking said lamination sheets.

Kloster substantially discloses the claimed invention, except for the following:

- (a) the laminated plate's edge is formed with indented portion;
- (b) the indented portion is formed around the entire peripheral edge, as in claims 2-3; or the indented portions with the projections and the recesses are provided at the peripheral edge of the circular core portion instead of being located in the peripheral area spaced from said pole teeth; and, the intended portions are circumferentially aligned and equal to number of poles, as in claims 4-7.

Regarding the limitation in subsection (a), Kloster discloses the indented portions to interlock the stacked laminations. Those skilled in the art would realize that forming the intended portion at the peripheral edge of the laminated plates instead of forming it in the peripheral area, as in Kloster, is a matter of re-arranging the disclosed Kloster's indented portions. This rearrangement would facilitate the fabrication of the intended portion.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the intended portion at the peripheral edge of the laminated plates because it would facilitate the fabrication of the intended portion during the manufacturing process. This is obvious because it has been held that rearranging parts of an invention involves only routine skill in the art, since one of ordinary skill in the art would have the necessary mechanical skill to make a simple rearranging the position of the disclosed element without an express teaching in a reference. *In re Japikse*, 86 USPQ 70. (emphasis added).

Regarding the limitations of subsection (b), those skilled in the art would understand that forming a plurality of indented portions or a single continuous circumferential indented portion in the laminated plates for interlocking the laminated core plates is a matter of engineering design choice based upon the size and weight of the core. For instant, a high power dynamoelectric machine might require sufficient large size to ensure the core structural integrity, the core might be configured with a plurality of intended portions to interlock the laminate core

plates. On the other hand, in a miniature dynamoelectric machine, the core might usually be a small and light weight core, then the configuration of a single continuous intended portion might be more suitable. Thus, it would have been obvious to an artisan to modify the size of the indented portion to be a single continuous circumferential indented portion or to include a plurality of intended portions are circumferentially aligned and equal to number of poles.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the indented portions of the Kloster's laminated core by configuring the plural intended portions into a single continuous circumferential indented portion, doing so would decrease and simplify the manufacturing process. It has been held that a change in size or shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955) (emphasis added).

Furthermore, it would have been obvious to one skilled in the art at the time the invention was made to modify the Kloster's laminated core by providing a number of intended portions to be the same as the number of poles and spaced in alignment with the poles this would provide more interlocking mechanism for the laminated plates to ensure the core structural integrity, particularly if the core is used as a rotor core, the more interlocking mechanisms would enable the rotor core to withstand the centrifugal force during the rotor's operation. Doing so would require only routine skills in the art since it has been held that merely duplication of the essential working parts, in this case the interlocking indented portions, of a device involves only routine skill in the art. *St. Regis Paper Co. vs. Bemis Co.*, 193 USPQ 8.

Communication

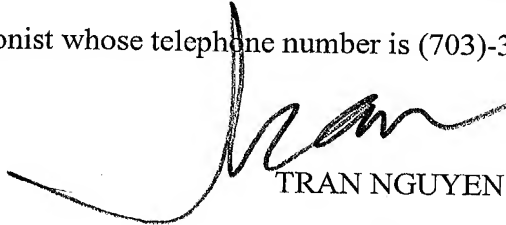
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N Nguyen whose telephone number is (703) 308-1639. The examiner can normally be reached on M-F 6:00AM-2:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703)-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)-395-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

A handwritten signature in black ink, appearing to read 'tran', is written over the printed name 'TRAN NGUYEN'.

TRAN NGUYEN

PRIMARY PATENT EXAMINER

TC-2800